SPRING 2004

SOUTHERN BEACON

Ko Hema Lamalama - Newsletter of the Kahoʻolawe Island Reserve Commission

Welcome to Southern Beacon, a newsletter signaling news from Kahoʻolawe. The name "Ko Hema Lamalama," according to the late Uncle Harry Kūnihi Mitchell, was one of several ancient names for Kahoʻolawe. It described the island's use as a navigational aid, or shining beacon, for long distance voyagers returning to Hawaiʻi. Today, the vision of a fully restored Kahoʻolawe serves as a guiding light to the revitalization of Native Hawaiian culture across the Islands.

PLANNING THE RE-BIRTH OF KAHOʻOLAWE

In November 2003, the U.S. Navy transferred control of Kahoʻolawe to the State of Hawaiʻi in a ceremony at ʻIolani Palace. This transfer, required by federal law, marked a new beginning in the history of the island and its surrounding waters.

The KIRC, on behalf of the State, has now begun management of Kahoʻolawe as the Navy demobilizes from the island. With these new responsibilities, the KIRC is faced with many opportunities and challenges. To help navigate through these waters, the KIRC is in the midst of developing a 5-year strategic plan for Kahoʻolawe. This plan, once complete, will serve as a "compass" in establishing direction and priorities for implementing its broader use and restoration plans for the island.

In January of this year, the Commission and Staff began discussions on the range of issues facing Kahoʻolawe and held public workshops throughout the State in February and March. During the discussions, the KIRC considered priorities for infrastructure improvements, increased public access, fundraising, cultural site surveys and restoration, and several others. The KIRC is currently in the process of refining these priorities and establishing specific action items. It is expected that the strategic plan will be completed in April 2004.

VOLUNTEERS TO SPEND 9,600 HOURS

At Kahoʻolawe planting project

The KIRC recently embarked on a two-year watershed restoration project around Luamakika at the summit of Kahoʻolawe. The project is funded by a grant from the Department of Health (DoH) and includes monitoring and controlling soil erosion, planting native plants, and eradicating alien plant species. A monitoring plan, site survey plan, and a strategic plan has been prepared to implement the project.

Several experts have been consulted in determining the 'best management practices' (BMPs) for controlling soil erosion. Volunteers are expected to contribute 9,600 hours by assisting in planting, hydromulching, and installing BMPs.

The goal of the project is to reduce non-point source pollution in the waters surrounding Kahoʻolawe by implementing best management practices (BMPs). A set of 'most effective' BMPs will be tested to control soil erosion. The BMPs being used include planting with native species, hydromulching, geotextile covers, constructing check dams, swales, and windbreaks.

Soil loss will be measured from the project area where BMPs are used and compared with a control plot. It is expected that the use of BMPs will substantially reduce soil erosion.

Erosion control with native plants at Luamakika

A final report will be prepared for the DoH by September of 2005. In addition, informational posters and brochures will be produced that can be used by the general public for other similar restoration projects.

PATHWAY TO FOREIGN LANDS

Kealaikahiki, *the pathway to foreign lands*, is the western-most end of Kahoʻolawe as well as the name of the channel between Kahoʻolawe and Lānaʻi.

According to ancient tradition, double hulled sailing canoes traveled between Hawaiʻi and Kahiki (Tahiti) via Kealaikahiki. Most notably, it was here that the great Hawaiian gods Kāne and Kanaloa first arrived. Another well-known seafarer of antiquity, Laʻamaikahiki, both resided and embarked from here on his journeys to Southern Polynesia.

Given the significance of Kealaikahiki, the KIRC's considering the building of a star compass and training area here for traditional Pacific navigation and sailing.

Kealaikahiki

ONLY THE STRONG SURVIVE

Kahoʻolawe is an inhospitable environment for many plants. That's why the Kahoʻolawe Environmental Restoration Plan goes to great lengths to identify the most hearty native species for use in initial restoration and erosion control.

The plants chosen possess several ideal characteristics: high survival rate among alien species, ease of propagation, seed pollination and dispersal, contribution to soil rebuilding and erosion control, and tolerance to heat, drought, high wind, fire and nutrient-deficient soil.

Pili grass bale in an area of high erosion. Note the soil build-up on the right side of the bale and new sprouts on the left side.

In all, 31 trees, 27 shrubs, 11 vines, 9 herbs, 7 ferns and 5 grass species were recommended, but two plant species have proven to be the most effective for both restoration and erosion control.

Pili grass *(heteropogon contortus)*
Although individual pili grass plugs have been planted in the past, the primary method used for populating pili is the use of bales.

The Natural Resource Conservation Service-USDA farms many acres of pili grass on the island of Molokaʻi. Though grown on a neighbor island, the original pili seed stock is from Kahoʻolawe, which maintains genetic integrity.

The crop is cut at the peak of its seeding cycle, and dried and baled, much like hay is baled for livestock feed. The bales are shipped to Kahoʻolawe where they are used primarily for erosion control. However, the seeds contained in the bales naturally disperse and provide an amazing secondary effect, as thousands of new shoots pop up down slope from the bales. The pili bales have been effective in both erosion control and restoration, especially where digging is a concern. The bales have also proven to be many times more efficient than planting individual plugs of grass by hand.

ʻAweoweo *(Chenopodium oahuense)*
Over the years, the ʻaweoweo shrub has moved to the front in the restoration of Kahoʻolawe. A very fast growing plant, its seedlings can produce viable seed in less than a year — within a few months, in some cases.

ʻAweoweo also produce substantial amounts of seeds, which produce thick groves of the shrub that easily out-compete alien species of grasses, including giant guinea grass *Panicum maximum*. ʻAweoweo is also tolerant to drought and serves as a natural wind block to protect other native seedlings planted in the leeward areas.

WARNING: Unexploded ordnance hazards remain on Kahoʻolawe and in the surrounding waters. Because of these continued hazards, access to the island is restricted and allowed only by authorization of the KIRC.

NEW WARNING SIGNS
On Island and Offshore

Two types of warning signs are being erected throughout Kahoʻolawe as part of the State's notification protocol.

The first are four offshore warning signs that will be placed along the island's main transit and approach routes. These signs will be visible from a distance and are intended to warn boaters and others about the danger of unexploded ordnance on Kahoʻolawe. The intention is to deter anyone from accessing the island without permission.

The second warning sign will be placed at 42 points-of-entry, which include selected beaches, coves, bays, and constructed landing zones. The point-of-entry signs are also intended to warn the public about the danger of unexploded ordnance as well as other risks on Kahoʻolawe.

KAHO‘OLAWE OCEAN RESOURCES

A Changing Habitat for Fish?

A project begun last year on Kaho‘olawe is aimed at determining the percentage of adult fish that use the island reserve as a nursery habitat.

Conducted by the KIRC Ocean Program in conjunction with Old Dominion University, Southeast Fisheries Science Center, and National Oceanic and Atmospheric Administration, the Otolith Project is also helping to determine the environmental history of the reserve ecosystem.

The otolith bones are extracted from the heads of collected hinalea *(thalasoma duperrey)* and roi *(cephalopholis argus)* and then analyzed for trace elements that are unique to Kaho‘olawe waters. The trace elements detected create a unique “Kaho’olawe signature” that allows for comparison of trace element signatures in fish from adjacent islands. This information can help determine the percentage of adult fish that use Kaho‘olawe as a nursery habitat and how, if at all, the habitat around the island has changed.

Hinalea

Otolith collection

Otolith bone under magnification

SURVEY TO MONITOR FISH POPULATION AND CORAL REEF

In December 2003, the KIRC, with support from the State Division of Aquatic Resources, began the installation of permanent transect points along the north shore of Kaho‘olawe. The transect sites were selected based on the locations of the cultural centers and overnight campsites identified in the KIRC’s Use Plan. A baseline survey of these sites will play an important role in monitoring any changes in fish population and coral reef health, and support the KIRC in managing the marine resources of the island.

HEALING OF KAHO‘OLAWE

Requires Holistic Touch

Prayers, chants, and offerings mark the opening of the planting season on Kaho’olawe.

The healing of Kanaloa (Kaho‘olawe) involves a physical and spiritual renewal that is being evidenced in the revival of cultural practices, traditions, and rituals.

Many of the activities on the island are guided by the need to return to a more holistic relationship between man and nature, and to place a strong emphasis on healing in our approach to environmental restoration.

Each year, the planting season begins with a ceremony that consists of appropriate prayers, chants, and offerings given at a series of rain ko‘a, or shrines, that were built in 1997.

The shrines link Ulupalakua, Maui to Luamakika, located at the summit of Kaho‘olawe. Their purpose is to help call back the cloud bridge that once existed between Maui and Kaho‘olawe. With these clouds come the famous Naulu rains for which Kaho‘olawe is traditionally known.

TURNING HARDPAN INTO VEGETATION

Bales of pili grass are formed into hummocks on the hardpan, seeded with ‘aweoweo, and irrigated.

Beginnings of ‘aweoweo seedlings taking root.

Transformation of hardpan into robust growth of ‘aweoweo.

kahoolawe.hawaii.gov

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KIRC LAUNCHES NEW KAHO'OLAWE WEBSITE

The Kaho'olawe Island Reserve Commission recognizes the desire by the public to learn more about Kaho'olawe. Plans are being created, new findings are being uncovered and the availability of access dates and fishing schedules are furthering the understanding and use of Kaho'olawe.

As a way to help disseminate this information to the public in a timely fashion, the KIRC developed an improved website located at kahoolawe.hawaii.gov.

The website provides an easy way to get access to important information immediately. Many of the postings are ready for download right from the site. For example, postings on requests for proposals (RFP), job announcements and open water schedules are readily available.

In addition, the various operational plans including the island use plan, ocean resources management plan, and access and risk management plan are available for the public to review. Each is available in its entirety along with maps, diagrams and images.

Also featured on the website is the video Kaho'olawe: Ka Ha o ko Makou Kupuna; The Breath of our Ancestors. It was produced in 2002 by the Advanced Video Class at HPU and commissioned by the KIRC. This video can be streamed on-demand right to your desktop. This 11-minute video provides an excellent overview of the efforts undertaken by the KIRC to restore Kaho'olawe.

The website will continue to grow and develop as time goes on. There's a wealth of information that still needs to be incorporated into the website. It'll become a tool for learning the culture and history of Kaho'olawe and will continue to be the primary means of disseminating information on the policies governing Kaho'olawe. The website is for you. We look forward to your return visits and welcome your comments.

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